TRACERS AND ASSEMBLY FOR LABELING CHEMICAL OR BIOLOGICAL MOLECULES METHODS AND KITS USING THE SAME

ABSTRACT

An improved process to create an arbitrarily large number of distinguishable particles allows more flexibility in experimental design and related efficiencies of scale. Novel enhanced tracers, for example, Shape Encoded Particles (SEP's) function as indicator means, such as probe-carriers in massively multiplexed assays. Shape encoded identity provides an elegantly simple tracking mechnism, whereby binding/reaction probes coupled to SEP's surfaces can be monitored, viewed, imaged or otherwise utilized leveraging off of the generation of millions of distinct, for example, approximately 100x100x10 micron squared silicon flakes fabricated using conventional MEMS techniques. Plethoric related applications, and contemplated strategies for benefiting from the novel enhanced SEP's and their respective enabling technologies are disclosed, ranging from pearl cultering seed elements to uniquely identify resulting jewelry pieces to an improved parallel stem cell differentiation screening assays.